

REMARKS

An Office Action was mailed on July 12, 2005. Claims 1-5 were pending, of which claim 1 was the sole independent claims. All claims stand rejected.

By the foregoing, claims 1 and 2 are amended, and new claims 6-22 are presented. The claims are supported by the specification as filed. No new matter has been added. Any extra claim fee may be charged to Deposit Account 50-1290.

Rejection under 35 U.S.C. §112, 2nd paragraph

Claims 1 and 2 stand rejected under 35 U.S.C. §112, 2nd paragraph, as being indefinite. The claims have been amended and longer recite optional limitations. Accordingly, the Examiner is respectfully requested to withdraw the rejection.

Rejection under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Claims 1-3 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,181,749 to Niki (Niki). Claims 1-5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Niki.

The presently claimed invention is a method for obtaining hot-formed product suitable for human consumption. Advantageously, the present invention utilizes the specific properties of Antarctic krill as a raw material, and in the succeeding steps separates the raw material into a liquid and dense fraction.

As is understood in the art, the process of obtaining krill can be based on draining the krill from seawater, and then centrifuging the krill or subjecting it to another treatment such as suction, to separate it into a liquid fraction and a dense fraction. Therein, the first part of the removed liquid, corresponding to about 5% of the total mass of the krill subjected to the treatment, can be discharged, as it may correspond to seawater absorbed by the krill; the rest of the liquid obtained will correspond to the relevant biological liquid.

After separation into the liquid and dense fraction, each are stored, for example by freezing. The succeeding steps, if frozen, after thawing, are to mix and homogenize the liquid fraction with the dense fraction and optionally add one or more additives.

Therein, the claimed invention requires the use of Antarctic krill. Advantageously, as claimed in all independent claims, the Antarctic krill has the ability to be separated into a liquid fraction and a dense fraction. The liquid fraction comprises the biological liquids of the krill while the dense fraction comprises the intact proteins, nutrients, and biological components of the Antarctic krill. Pg. 2, lines 10 et al., pg. 2, lines 17 et al.

Niki does not teach, disclose, or suggest separating Antarctic krill or the like into a liquid fraction and a dense fraction. In fact, Niki teaches away from the claimed invention and uses solid portion from the catch and water that is foreign to the catch. Niki teaches that to practice the invention "strained fish meat is mechanically minced together with [water]" and then "centrifugally separated and the supernatant liquid is recovered" while the solids are further processed. Col. 2, lines 3 et al. In other words, rather than separating the catch into its biological liquid and its dense fraction, Niki teaches that biological solids are minced, i.e. do not remain intact, and then are processed with water, which is foreign to the catch. Thus, Niki does not teach the step of "separating the Antarctic krill into a liquid fraction and a dense fraction" as claimed nor the limitation that the dense fraction comprises "substantially intact proteins, nutrients and biological components of krill." Accordingly, the Examiner is respectfully requested to withdraw the rejections for this reason alone.

Notwithstanding the above, one skilled in the art would not look to Niki to teach, disclose, or suggest the presently claimed invention. Niki relates generally to fish processing, and does not specifically consider the use of Antarctic krill. More precisely, Niki relates to an improved method of obtaining surimi, defined as "fish meat minced into a sol-form". Niki does not relate specifically to Antarctic krill and, further, does not disclose any mixture of the liquid and dense fractions of said product. Although Niki utilizes different components of a catch, these are not the same components nor are they mixed as claimed in the present application. Instead, the components of Niki are subjected to further treatments. Niki does not appear to consider obtaining the relevant product by first separating Antarctic krill into a liquid and a dense fraction

where one or both of which can be frozen, thus facilitating storage prior to final processing, and then mixing said fractions (if frozen, after thawing) and homogenizing the liquid fraction with the dense fraction.

The present application is directed to a method of obtaining hot-formed products by using the previously separated liquid and dense fractions of the Antarctic krill. Therein, the present inventive method, especially with an addition of one or more additives, provides for a very usable product. The method is simple and based on the (re)mixture of the previously separated liquid and dense fractions of the Antarctic krill.

Thus, the methods are different in that, for example, they use different starting materials and produce different end products. Applicant respectfully suggest that the similar steps are considered out of context does not make two different processes identical.

Each of claims 2 and 3 define specific process features which produce a specific mixture based on the mixture of the dense and liquid fractions obtained from Antarctic krill. While a certain interval or range given in the claims (such as a temperature range) may partly overlap with a range mentioned in Niki et al., Niki does not relate to the same raw materials, namely, a mixture of the liquid and dense fractions of Antarctic krill.

Thus, a certain parameter range given in Niki et al. for one type of fish meat cannot at all be considered relevant for the treatment of a mixture specifically based on the dense and liquid fractions of the Antarctic krill, and it would certainly not be obvious to the skilled person to apply selected features known from Niki et al. in connection with one type of raw material, to a process based on a mixture of the liquid and dense fractions of Antarctic krill. Accordingly, the Examiner is respectfully requested to withdraw the rejections for this reason alone.

Furthermore, Niki describes how the soluble protein fraction has to be subjected to a thermal process so as to coagulate the proteins soluble in water, so as to prevent them from interfering with the myofibril proteins. Without this thermal treatment, it is not possible to use the water soluble protein fraction.

In contrast in the presently claimed invention, the liquid fraction corresponds to the liquid obtained after centrifugation of the krill and is not similar to Niki. Niki teaches that the fraction

of proteins soluble in salt is obtained by a complex process involving washing, producing a solution, provoking precipitation and centrifugation. In the present invention, the dense fraction corresponds to the krill meat obtained after the initial centrifugation process. Thus, Niki does not teach, disclose, or suggest a liquid fraction as claimed nor a dense fraction as claimed. Accordingly, the Examiner is respectfully requested to withdraw the rejections for this reason alone.

The Examiner is respectfully requested to withdraw the rejections for the reasons given above, individually or cumulatively, and in view of the amendments and newly presented claims.

All dependent claims are allowable for at least substantially the same reasons as the independent claim from which they depend. Thus, Applicant believes that the application is now in condition for allowance of all claims and earnestly solicits the same.

However, if for any reason the Examiner should consider this application not to be in condition for allowance, the Examiner is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, including any necessary extension fees, may be charged to Deposit Account 50-1290.

Respectfully submitted,



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CUSTOMER NUMBER 026304
Docket No.: HERR 20.844 (100700-00144)
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